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to 10 rpm, the device being of a shape such that the solid is conveyed in the separator central zone (with reference to the longitudinal axis). It has been found that said stirring prevents the solid from adhering and accumulating on the separator walls, so that no impermeable layer formation occurs in the separator during the processing.

The distance between the separator walls and the stirrer blades is from 0.5 to 2 cm.

According to the present invention process the separator is charged with the tomato juice, obtained for example by tomato fruit trituration and seed and peel separation, or charged with tomato passatas, obtained for example as the tomato juice but operating at lower temperature during the centrifugation step. The tomato juices have been previously treated according to known processes, for example by "hot break", "cold break" processes, or by applying high pressures, for example of the order of 5,000-7,000 Atm ( $5.06 \times 10^2$  MPa -  $7.09 \times 10^2$  MPa), to inactivate enzymes.

The tomato mass to be filtered can optionally be protected during the process by operating in an atmosphere of an inert gas, e.g. nitrogen. In this way it is avoided the contact of the tomato mass with oxygen in the presence of the light. This optional step is requested in case the temperature, for unforeseen events, during the process results higher than 25°C. By operating in this way no lycopene losses occur.

The process ends when in the separator there is a compact mass which does not separate any longer tomato juice serum.

By operating with the separation process according to the present invention carotenoids, lycopene comprised, remain in the mass which separated from the liquid part or tomato serum.

Unexpectedly and surprisingly with the invention process there is no clogging of the separator walls having openings or holes of the above said sizes since unexpectedly and surprisingly a compact mass is formed, as said above. Said result is unforeseen since one would expect the formation of a product layer adhering to the walls, substantially

taste, since the ratio water soluble/insoluble solids, as said, can be therein varied.

The following not limiting Examples illustrate the invention.

#### EXAMPLES

##### Characterization methods

##### Determination of the saucing power of a tomato product according to the invention

###### - Materials:

- tomato product to be tested,
- vegetable oil, preferably olive oil,
- full length, not broken spaghetti No. 12 De Cecco trade mark with cooking time indicated by the manufacturer 12 minutes,
- sea salt.

90 g of tomato product to be tested and 10 g of vegetable oil (condiment total weight: 100 g) are introduced into a vessel, preferably a plastic vessel, previously weighed and having 1 liter capacity.

70 g of spaghetti are cooked apart, in 1 liter of water containing 5 g of sea salt, for the time indicated on the package. At the end the cooked spaghetti are strained until no drops form any longer.

The cooked spaghetti are added to the condiment previously prepared in the plastic vessel and by a fork they are carefully mixed slowly for 5 minutes. The vessel is then put on a boiling water bain-marie for 5 minutes, without mixing spaghetti. From the vessel with a fork the spaghetti are taken in a number of 2-3 at a time and without shaking them, it is let fall in the vessel the condiment which tends to immediately detach.

In the plastic vessel it remains the condiment which has not adhered to the spaghetti. Lastly the plastic vessel is weighed and in this way it is determined the condiment weight which has not adhered to the pasta. The difference to 100 (initial condiment weight) gives the amount which has remained attached to the pasta ( $Q_a$ ).

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## CLAIMS

1. A tomato composition obtained from tomato juice or tomato passatas having the following composition in percentage by weight:
  - dry residue 5,5 - 20%,
  - water 94,5 - 80%,100% being the sum of the two components, wherein the amount of water insoluble solids and water soluble solids in the dry residue range in percentage by weight as it follows:
  - water insoluble solids from 18% to 70%,
  - water soluble solids from 82% to 30%.
2. Compositions comprising the tomato products of claim 1, wherein the amount of water insoluble solids and water soluble solids in the dry residue range in percentage by weight as it follows:
  - water insoluble solids: 20%-50%,
  - water soluble solids : 80%-50%.
3. Compositions comprising the tomato products of claim 2, wherein the amount of water insoluble solids and water soluble solids in the dry residue range in percentage by weight as it follows:
  - water insoluble solids: 30% to 50%,
  - water soluble solids 70%-50%.
4. Compositions comprising the tomato products of claims 1-3 in admixture with animal and vegetable fats, solid at room temperature, preferably butter or margarine, and/or fats liquid at room temperature preferably olive oil, and/or cheeses having soft-grain, or hard-grain and grated.
5. Compositions according to claim 4, wherein the tomato products of claims 1-3 have a water insoluble solid content and water soluble solid content in the dry residue in the following ranges as percentages by weight:
  - water insoluble solids from 30% to 70%,
  - water soluble solids from 70% to 30%;more preferably:

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- water insoluble solids from 35% to 70%;
  - water soluble solids from 65% to 30%;
6. Compositions according to claims 4-5, wherein the amount of fats and/or oil in the composition ranges from 10% to 25% by weight referred to the weight of the starting tomato product; the amount of soft-grain cheeses which can be englobed ranges from 50% to 300% by weight, the amount of hard-grain and grated cheeses which can be englobed ranges from 10% to 25% by weight.
  7. Use of the compositions of claims 1-6 for saucing foods, in particular pasta, meat, fish, vegetables.
  8. Use of the compositions of claim 6 as ready-to-use sauce for foods.
  9. Use of the compositions of claims 7-8 comprising usual ingredients of the products for food use, preferably essence aromas, preservatives.
  10. Use of the compositions according to claims 1-6 as foods.
  11. Foods according to claim 10.
  12. A process for the separation of the liquid (tomato juice serum) from a tomato suspension by using a separation solid-liquid apparatus wherein the suspension to be filtered is maintained under stirring at an angular speed from 1 rpm to 20 rpm, preferably from 2 rpm to 10 rpm, the stirrer being of a shape to convey the suspension toward the central axis of the apparatus, or there is not a stirrer and it is the apparatus that rotates.
  13. A process according to claim 12 wherein the apparatus for separating the liquid from a tomato suspension is a sieve maintained under an oscillating motion, preferably under a nutational motion, the oscillations per minute being from 1 to 20 oscillations/min, preferably from 2 to 10 oscillations/min.
  14. A process according to claims 12-13, wherein sterile conditions are used or the final tomato product undergoes a sterilization process.
  15. A process according to claims 12-14, wherein it is operated at temperatures in the range 5°C-25°C, preferably